

IN THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) A telecommunications apparatus comprising:

a plurality of telecommunications physical layer interfaces,

one or more telecommunications higher-layer processors, and

a digital cross-connect connected to route telecommunications traffic among the physical layer interfaces and the one or more telecommunications higher-layer processors,

wherein the digital cross-connect is interposed between the physical layer interface and the one or more telecommunications higher-layer processors.

2. (Original) The apparatus of claim 1 wherein at least one of the physical layer interfaces is a SONET physical layer interface.

3. (Original) The apparatus of claim 1 wherein a higher layer processor is an asynchronous transfer mode (ATM) processor.

4. (Original) The apparatus of claim 1 wherein a higher layer processor is an internet protocol (IP) processor.

5. (Currently Amended) The apparatus of claim 2 wherein the digital cross-connect is configured to provide 1:1 automatic protection switching for communications traffic from at least one of the physical layer interfaces to one or more telecommunications higher-layer interfaces.

6. (Currently Amended) The apparatus of claim 2 wherein the digital cross-connect is configured to provide 1:N automatic protection switching for communications traffic from at least one of the physical layer interfaces to one or more telecommunications higher-layer interfaces.

7. (Currently Amended) The apparatus of claim 2 wherein the digital cross-connect is configured to provide 1:1 automatic protection switching for communications traffic to at least one of the physical layer interfaces from one or more telecommunications higher-layer interfaces.

8. (Currently Amended) The apparatus of claim 2 wherein the digital cross-connect is configured to provide N:1 automatic protection switching for communications traffic to at least one of the physical layer interfaces from one or more telecommunications higher-layer interfaces.

9. (Currently Amended) A packet-switching system comprising:
one or more telecommunications apparatuses, each apparatus including:
a plurality of telecommunications physical layer interfaces,
one or more telecommunications higher-layer processors, and

a digital cross-connect connected to route telecommunications traffic among the physical layer interfaces and the one or more telecommunications higher-layer processors,

wherein the digital cross-connect is interposed between the physical layer interface and the one or more telecommunications higher-layer processors, and

a packet switch fabric operable ~~connected~~ to switch telecommunications traffic, received at one or more of the physical layer interfaces, to at least one other of the one or more ~~of the~~ physical layer interfaces.

10. (Original) The system of claim 9 wherein at least one of the physical layer interfaces is a SONET physical layer interface.

11. (Original) The system of claim 9 wherein a higher layer processor is an asynchronous transfer mode (ATM) processor.

12. (Original) The system of claim 9 wherein a higher layer processor is an internet protocol (IP) processor.

13. (Currently Amended) The system of claim 10 wherein the digital cross-connect is configured to provide 1:1 automatic protection switching for communications traffic from at least one of the physical layer interfaces to one or more telecommunications higher-layer interfaces.

14. (Currently Amended) The system of claim 10 wherein the digital cross-connect is configured to provide 1:N automatic protection switching for communications traffic from at least one of the physical layer interfaces to one or more telecommunications higher-layer interfaces.

15. (Currently Amended) The system of claim 10 wherein the digital cross-connect is configured to provide 1:1 automatic protection switching for communications traffic to at least one of the physical layer interfaces from one or more telecommunications higher-layer interfaces.

16. (Currently Amended) The system of claim 10 wherein the digital cross-connect is configured to provide N:1 automatic protection switching for communications traffic to at least one of the physical layer interfaces from one or more telecommunications higher-layer interfaces.

17. (Currently Amended) A method of switching telecommunications traffic comprising the steps of:

(A) receiving telecommunications traffic at a telecommunications physical interface;

(B) routing the received telecommunications traffic from the physical interface to a digital cross-connect; and

(C) routing the telecommunications traffic through the digital cross-connect to a telecommunications higher-layer processor,

wherein the digital cross-connect is interposed between the physical layer interface and the one or more telecommunications higher-layer processors.

18. (Currently Amended) The method of claim 17 further comprising the step of:

(D) routing the telecommunications from the telecommunications higher-layer processor through a packet switch fabric to another [[a]] higher-layer processor;

(E) routing the telecommunications from the another higher layer processor to another [[a]] digital cross-connect; and

(F) routing the telecommunications from the other higher layer processor to [[a]] other telecommunications physical interface.

19. (Original) The method of claim 17 wherein the step (A) of receiving telecommunications traffic further comprises the step of:

(A1) receiving telecommunications at a SONET physical layer interface.

20. (Original) The method of claim 17 wherein the step (C) of routing the telecommunications traffic further comprises the step of:

(C1) routing the telecommunications traffic to an asynchronous transfer mode (ATM) processor.

21. (Original) The method of claim 17 wherein the step (C) of routing the telecommunications traffic further comprises the step of:

(C2) routing the telecommunications traffic to an internet protocol (IP) processor.

22. (Currently Amended) The method of claim 17 wherein the step (C) of routing the telecommunications traffic further comprises the step of:

(C3) providing 1:1 automatic protection switching for communications traffic from at least one of the physical layer interfaces to one or more telecommunications higher-layer interfaces.

23. (Currently Amended) The method of claim 17 wherein the step (C) of routing the telecommunications traffic further comprises the step of:

(C4) providing 1:N automatic protection switching for communications traffic from at least one of the physical layer interfaces to one or more telecommunications higher-layer interfaces.

24. (Currently Amended) The method of claim 18 wherein the step (E) of routing the telecommunications traffic further comprises the step of:

(E1) providing 1:1 automatic protection switching for communications traffic to at least one of the physical layer interfaces from one or more telecommunications higher-layer interfaces.

25. (Original) The method of claim 18 wherein the step (E) of routing the telecommunications traffic further comprises the step of:

(E2) providing N:1 automatic protection switching for communications traffic to at least one of the physical layer interfaces from one or more higher-layer interfaces.